

## Eagle Harbor 2025: Planning for a Sustainable Community

### COASTAL AND ENVIRONMENTAL HAZARDS

Environmental hazards intensified by climate change are compounded in coastal communities. As a coastal community, Eagle Harbor is exposed to these hazards. The Town has experienced sea level rise for decades through normal wave action. However, evidence shows that the pace rising sea levels is increasing, and climate change is the blame. Sea level rise contributes to high tide and sunny day flooding, the later referring to flooding not related to a major storm event. NOAA has noted that “it no longer takes a strong storm or a hurricane to cause coastal flooding”. Instead, flooding has become a normal occurrence as a result of sea level rise related to climate change and will become “more noticeable and much more severe in the coming decades, likely more so than any other climate change related factor. Any acceleration in sea level rise ...will further intensify high tide flooding impacts over time...”

During high tide land is inundated and, increasingly, for longer periods of time. This is a regular occurrence at high tide at Trueman Point. At high tide the river comes ashore and covers much of the southern portion of the property, inundating the parking and picnic areas, and paved area leading to the boat launch. There is a significant volume of water at its worse, and the current is strong. It takes days for the water to recede and the water ponding closer to the entrance to seep into the ground or evaporate from paved areas. In the northern section of the property, there is marsh behind the narrowing beach areas that helps to slow the speed and spread of flood

waters and distribute it more slowly over this portion of the property.



Hightide flooding at Trueman Point



Flooding of paved areas at Truman Point

Flooding of Trueman Point is a both a blessing and a curse. This nine-acre historic property serves as a barrier that absorbs

## Eagle Harbor 2025: Planning for a Sustainable Community

storm waters and strong wave actions, protecting adjacent properties. At the same time, this prized possession is seen as a potential new revenue source for the Town. Flood water inundates the property for days after a storm, affecting safe access to the pier, boat ramp parking, and use of the existing picnic area.

Other areas along the Eagle Harbor shoreline also flood from high tide that inundates the edges of properties and threatens accessory structures primarily, but also primary structures that are close to the river's edge. Storm surges intensify the problem. These hazards are occurring more frequently and intensifying, and their effects are lasting longer. They expose the Town to loss of property as the shoreline erodes and water level continues to rise. They also degraded hardened shoreline treatments installed by property owners to withstand these conditions.



High Tide and Inundation of Pier and Edge of Property

The Town's risks from these factors are increasing. As beach areas continue to decrease from both sea level rise and erosion property owners also loose a key attribute of their properties and use of beach areas. The loss has also changed the ecology and depth of the river at the shoreline.



Erosion from Strong Wave Action

Strong waves have weakened hard surfaces erected to stabilize elevated areas and protect yards from erosion. In the case of one property (below, right side), a retaining wall standing at least 10 feet tall fell victim to wave actions that destabilized the soil beneath the wall. The wall collapsed during the planning process causing major damage to decorative pavement and leaving the ground cracked and exposed to severe erosion and collapse, and otherwise unprotected.



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Retaining Wall Showing at Risk of Collapse (May 2018)

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Eventual Collapse of Retaining Wall (July 2018)



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Damage to Property Due to Collapsed Retaining Wall (July 2018)

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Heavy rains cause significant stormwater runoff into Coleman Creek, reshaping and collapsing the creek banks creating the need for constant dredging to maintain adequate performance of the creek. The Eagle Harbor Board of Commissioners has assumed responsibility for the creek even though it runs through private property for most of its length.

The creek is a persistent source of concern for owners whose property includes the creek and of adjacent and nearby properties due to regular flooding and occasional transport and deposits of sand onto these properties (the source of which is not definitively known). A creek restoration program funded through the Maryland Department of Natural Resources is currently underway to identify appropriate treatments along the creek to address its functionality and appearance and make it more resilient. The strategies under consideration include reconnecting sections of the creek to the existing flood plain, installing a hard structure to stabilize the banks of the creek running through private property, currently shored up with wood; using green infrastructure treatments along the bank to the extent possible; replacing the Patuxent Blvd culvert; and elevating the portion of Patuxent Blvd 50 feet on either side of the creek.

As mentioned, the creek overflows its banks regularly, leaving adjacent properties inundated with water for days at a time. During this planning process, Coleman Creek also carried and deposited significant amounts of sand onto adjacent private

property and Patuxent Blvd. The sand quickly filled the culvert beneath the roadway causing stormwater to backflow and overflow the roadway, making it impassible especially with the large amount of sand deposits and active waterflow.



Standing Water from Coleman Creek Overflow (May 2018)



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Coleman Creek Overflow and Sand Deposits (July 2018)



Sand Deposits on Patuxent Blvd (July 2018)



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**Coleman Creek Overflow**

Additional documentation of the hazards along the Eagle Harbor coastline are provided in the following Coastal Flood Hazard Maps (NOAA Coastal Flood Exposure Mapper). The maps document high tide flooding, sea level rise, storm surge and FEMA flood zone areas in Eagle Harbor and other areas along the Patuxent River in both Prince George's and Calvert Counties. The composite map illustrates the aggregate risk of the multiple coastal hazards. A description of each map follows (the source of which is the Mapper software):

**High Tide Flooding** – illustrates low-lying coastal areas prone to flowing during extreme high tide. Extreme high tides occur during lunar events and storm events when rainfall and wind pushing water over land increase flooding levels.

**Sea Level Rise** – illustrates scenarios of sea level rise from zero to six feet based on an average of highest high tide. Low lying areas have the greatest exposure to flooding from sea level rise which can cause permanent changes to shorelines.

**Storm Surge** – illustrates the height of storms that are influenced by different factors including storm intensity, speed and conditions along the shoreline. The map shows areas with the highest degree of exposure.

**FEMA Flood Zones** – illustrates areas with high risk of flooding from a 100-year storm, reflecting a one percent chance of flooding any given year. Some areas of the zone flood frequently while others only as a result of severe storms.

**Coastal Flood Hazard Composite** – shows areas that are prone to flooding from one or a combination of hazards. The darkest color on the map illustrates the highest number of hazards existing for the location.



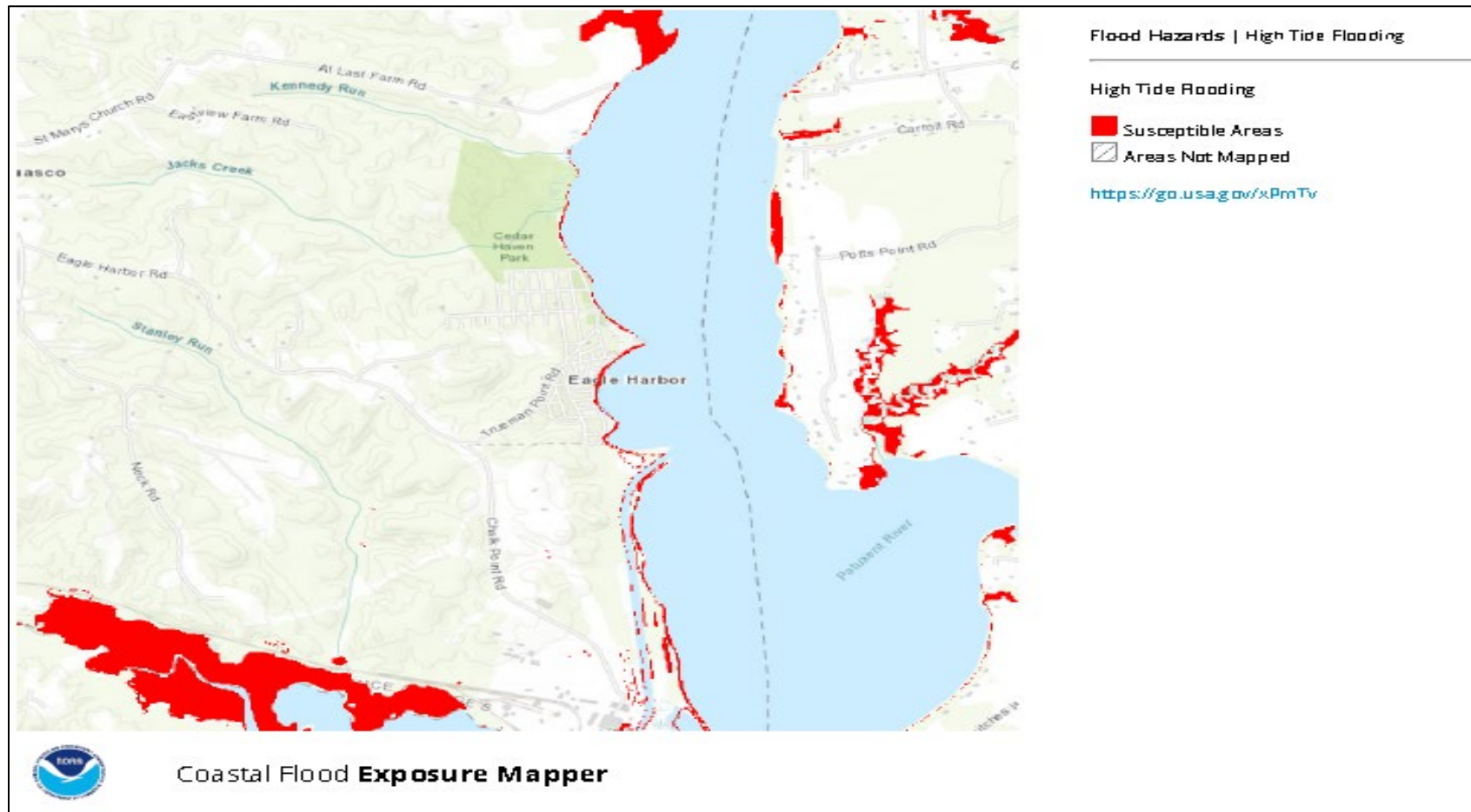
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As the composite map further illustrates, many areas along the Eagle Harbor coastline are exposed to multiple hazards. Some areas are exposed to and at risk of all four hazards: high tide flooding, sea level rise, storm surges and flood zones. For example, there are four locations along the Eagle Harbor coastline that are threaten by all four hazards. They are:

1. Trueman Point;
2. The area immediately south of Trueman Point and north of Juniper Trail;
3. The area between Hawthorne Trail and Lincoln; and
4. The area between Lincoln Drive and Oak Trail are all vulnerable to.

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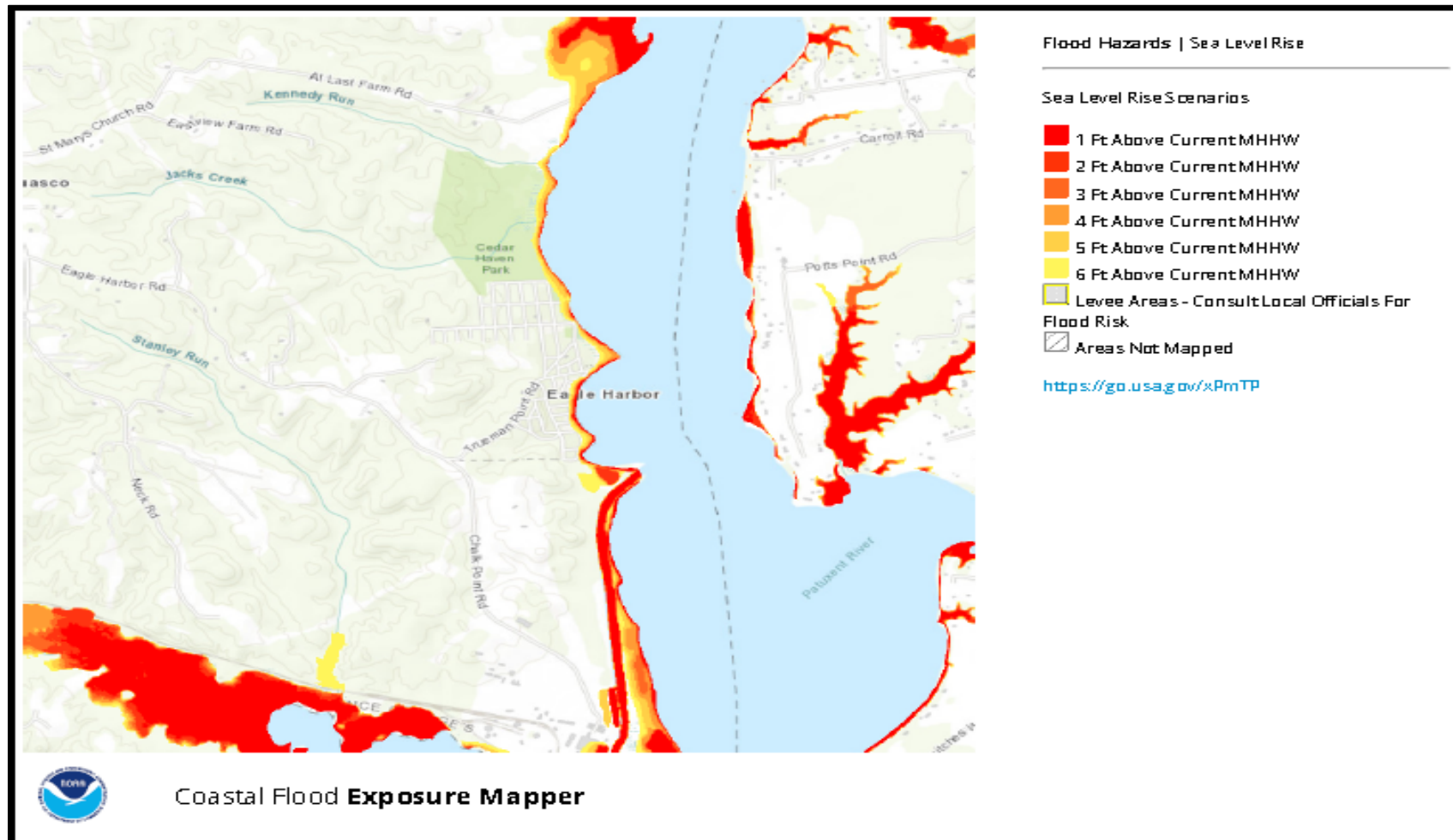
Map 17: Flood Hazards: High Tide Flooding





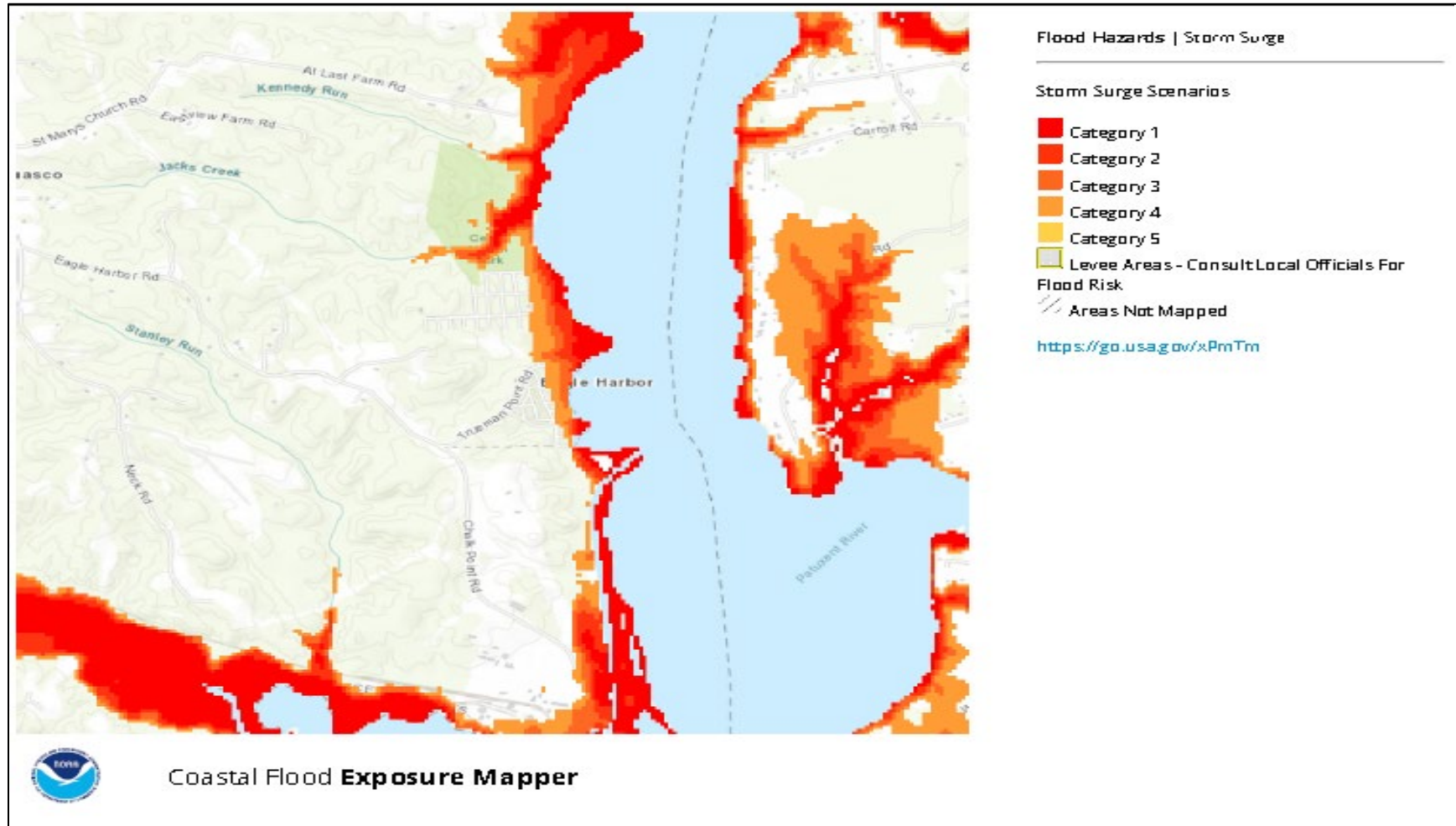
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Map 18: Flood Hazards: Sea Level Rise



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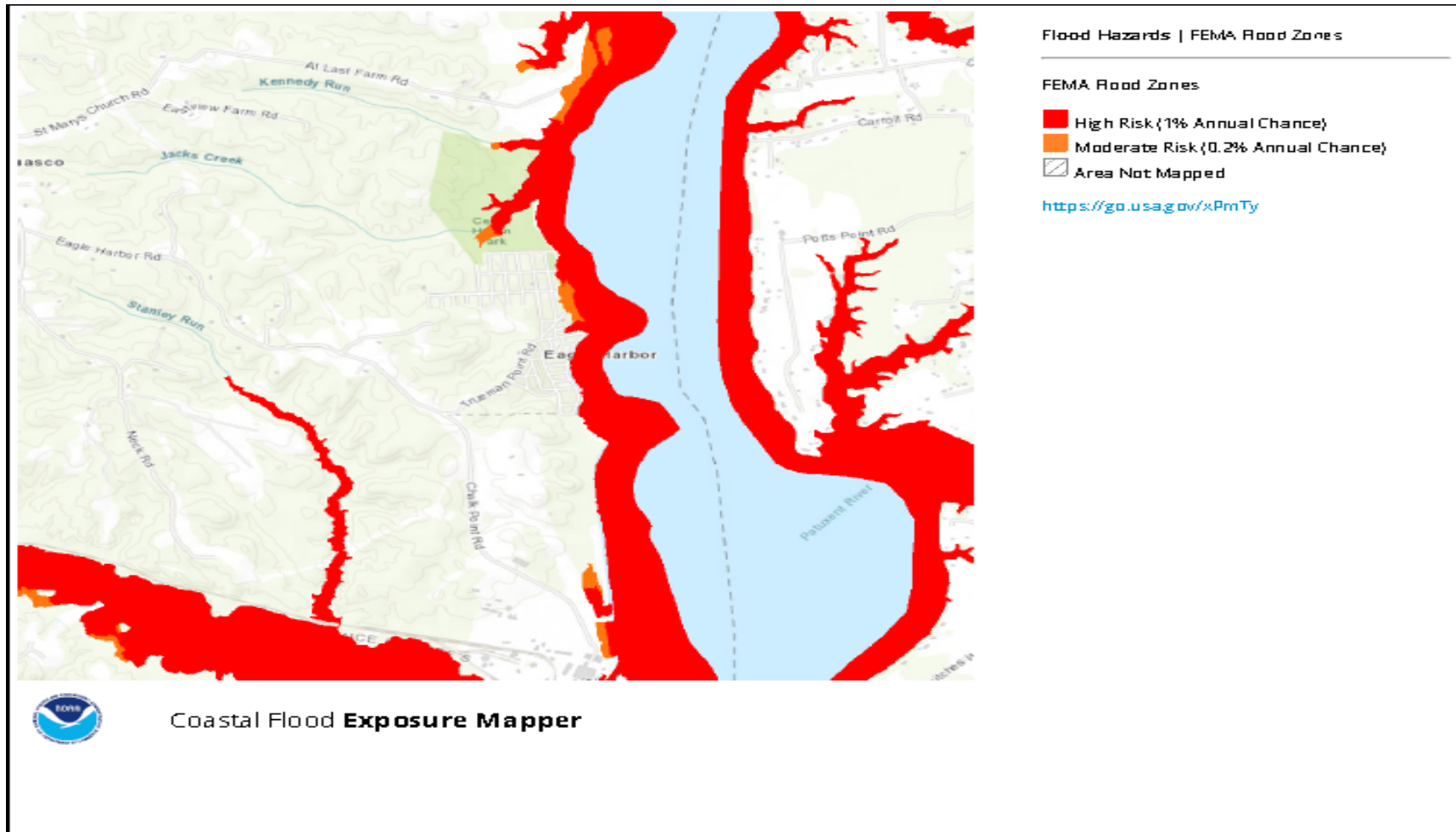
Map 19: Flood Hazards: Storm Surge





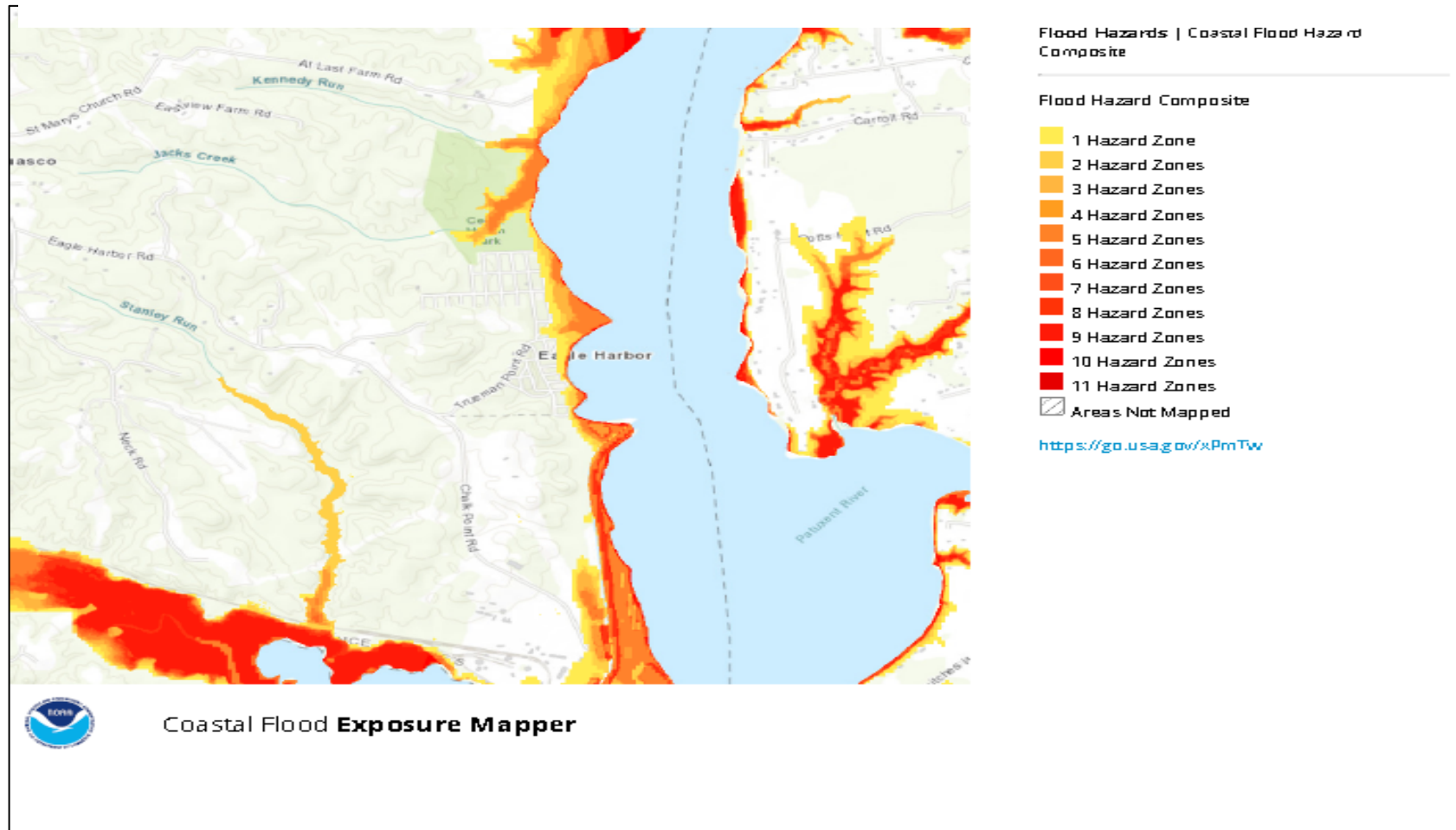
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Map 20: Flood Hazards: FEMA Flood Zones



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Map 21: Flood Hazards: Coastal Flood Hazard Composite





# Eagle Harbor 2025: Planning for a Sustainable Community

## DOCUMENT REVIEW

There are layers of plans, policies and regulations created at each level of government that affect development activities in Eagle Harbor. These also include plans and ordinances established by the Town. This planning process included a review of several state, county and Town policy and regulatory documents to determine whether updates should be made to meet Town sustainability goals. The list of plans and regulations reviewed as part of this process are listed below.

1. Plan 2035 Prince George's Approved General Plan (2004)
2. Subregion 6 Approved Master Plan and Sectional Map Amendment
3. Historic Sites and District Plan (2010)
4. Priority Preservation Area Functional Master Plan (2012)
5. Countywide Green Infrastructural Plan (2005)
6. Prince George's County Resource Conservation Plan (2017)
7. Prince George's County Zoning Ordinance
8. Zoning Ordinance Rewrite (2018)
9. Prince George's County and City of Laurel Hazard Mitigation Plan (2010)
10. Water and Sewer Plan (2008)
11. Eagle Harbor Strategic Plan (2017)
12. Eagle Harbor Sustainability Community Action Plan (application for designation, 2017)
13. Eagle Harbor Town Charter 1, 2 and 3

14. The General Ordinances of the Town of Eagle Harbor, Maryland (2007)

This section provides a short list of policies and regulations directly affecting how land is developed in Eagle Harbor, including those that share objectives with this plan and those that do so but in a manner that may preclude the Town meeting its goals, especially regarding development on the river.

Six of the State's 12 Visions established in the Smart and Sustainable Growth Act of 2009 bear presenting here as they put forth aspirations and guidance to local governments on planning for sustainable growth and development. Those vision statements are listed below and helped to inform the scope of the planning process and many of the recommendations included in this plan.

1. **Quality of Life and Sustainability:** A high quality of life is achieved through universal stewardship of the land, water, and air resulting in sustainable communities and protection of the environment.
2. **Public Participation:** Citizens are active partners in the planning and implementation of community initiatives and are sensitive to their responsibilities in achieving community goals.
3. **Environmental Protection:** Land and water resources, including the Chesapeake and coastal bays, are carefully managed to restore and maintain healthy air and water, natural systems, and living resources.

## Eagle Harbor 2025: Planning for a Sustainable Community

4. **Resource Conservation:** Waterways, forests, agricultural areas, open space, natural systems, and scenic areas are conserved.
5. **Stewardship:** Government, business entities, and residents are responsible for the creation of sustainable communities by collaborating to balance efficient growth with resource protection.
6. **Implementation:** Strategies, policies, programs, and funding for growth and development, resource conservation, infrastructure, and transportation are integrated across the local, regional, state, and interstate levels to achieve these Visions.

County and State policies and regulations have the greatest impact on the development of land in Eagle Harbor. Town ordinances also affect development. The policies and regulations that follow provide the context for implementation of this plan. Although they create major challenges for developing land within the Town, they seek to preserve and protect important natural resources, improve water quality in the Bay and its tributaries, including the Patuxent River, and minimize the effects of sea level rise on coastal communities.

1. The General Plan of Prince George's County places the Town of Eagle Harbor in the Rural and Agricultural Areas of the Growth Policy Map. These are "areas with significant natural and agricultural resources that are best suited for low-density residential development on well and septic, agricultural activity, and forest preservation."
2. The County Water and Sewer Plan reinforces and implements this General Plan growth policy by retaining the Town of Eagle Harbor in Category 6, which requires private or share well and septic systems. The county's six-category designation is mandated by the state.
3. The Subregion 6 Master Plan established a policy to strengthen and enhance the waterfront in Town and ensure that residents have adequate public facilities. The plan includes strategies to work with the Town to prioritize public improvements and create a public/private partnership for shoreline restoration and stabilization.
4. Zoning in the area is Rural Residential with a minimum lot size of 10,000 to 15,000 square feet, depending upon the date properties were platted, and Commercial Shopping Center, which allows a range of uses beyond what the current small lot can accommodate or would be appropriate for the Town. The new Zoning Ordinance includes a Neighborhood Conservation Overlay Zone classification that allows regulations to be tailored to the character and objectives of the community. This zone might be more appropriate for the Town in general as it can be tailored to meet the needs of the time while conserving important natural resources.
5. Development within 1,000 feet of the Patuxent River is governed by policies of the state Chesapeake Bay Critical



## Eagle Harbor 2025: Planning for a Sustainable Community

Area Program implemented through overlay zones in the local Zoning Ordinance. The overlay zones in effect in Eagle Harbor establish stricter development standards including limits on the types of uses that can be developed in the zones, beyond what is regulated and prohibited in the underlying zoning district. The overlay zones protect the shoreline from development that would negatively impact the environment and river and in doing so might preclude or severely limit the types of development desired by the Town especially at Trueman Point.

6. State regulations and the local ordinance required that a 100-foot Buffer be established and maintained adjacent to the river. New development that disturbs the land or natural vegetation or change lot coverage is prohibited in the Buffer Zone. When planting is required in the zone a Buffer Management Plan must be developed. Development of vacant lots within the Buffer Zone in Eagle Harbor will be a challenge as the lot depths are exactly 100 feet.
7. The 2005 Green Infrastructure Plan and 2017 Resource Conservation Plan, Green Infrastructure Element place most of the Town in the Evaluation Area. The Regulated Area encompasses the area adjacent to Coleman Creek and all of Trueman Point in 2017. Development is not prohibited in either category but through the development review process, efforts will be made to preserve natural resources in place, ensuring that development does not

inhibit their ability to survive; connect pieces of the network; restore ecosystems; and maintain important sections of the green infrastructure.

8. The Town has established a six-lot minimum for development. Depending on the date a property was platted, this requirement might exceed the lot size requirement of the underlying zoning district.
9. The Town recently adopted an amendment to its ordinance and charter to strengthen its effectiveness in the area of sustainability. The ordinance amendment addresses code enforcement through better collaboration with the county's code enforcement program. An amendment to the Town charter created a standing Sustainability Committee to monitor hazardous environmental conditions and oversee implementation of this plan.